EIZO

RadiForce®

Medical Monitor Solutions

For Your Needs

Worldwide, more and more hospitals and other health care institutions are rapidly moving towards a filmless environment.

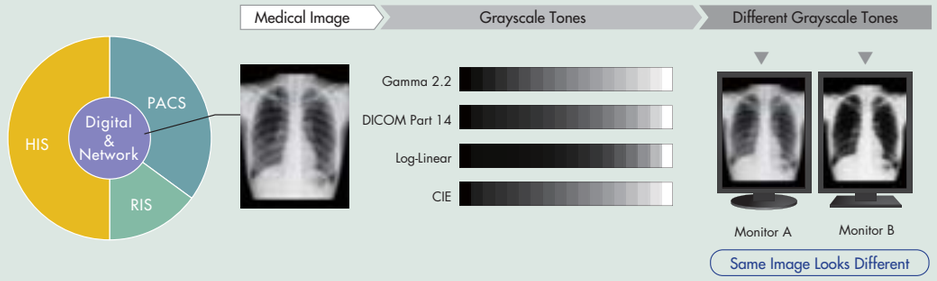
In line with this trend, medical image display monitors are becoming increasingly important.
In addition to delivering precise, stable image display, hospital demands for monitors now include unified image display between multiple monitors, management of a huge volume of information, and common access to in-house data. As a specialist monitor maker applying know-how gleaned from years of experience, EIZO has gained the highest praise for supplying a wide range of solutions such as product quality support compliant with unified international standards, and the unification of quality control with comprehensive hospital networks.

EIZO

Selecting the Optimum Monitors for Hospitals

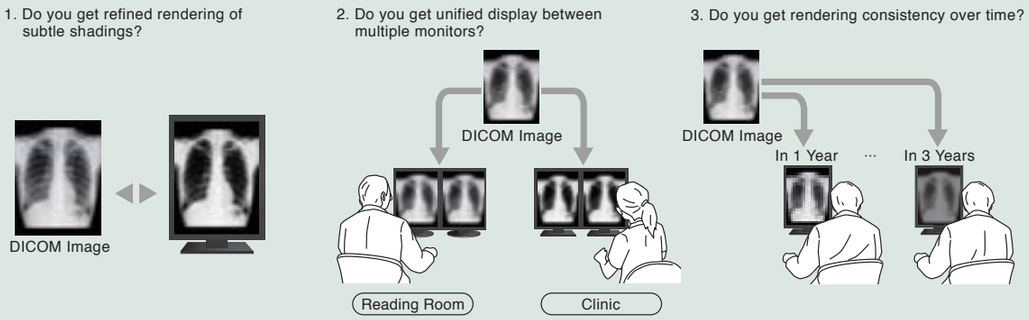
Display Differs Depending Upon Grayscale Tones

In a filmless environment, digitized medical images are displayed anywhere within networked hospitals. Monitors have grayscale tone characteristics which may vary even between the same models. A unified standard is required to display images properly and consistently, and Digital Imaging and Communications in Medicine (DICOM) Part 14 is used as a standard to adjust the grayscale tone characteristics of monitors used in the medical field.



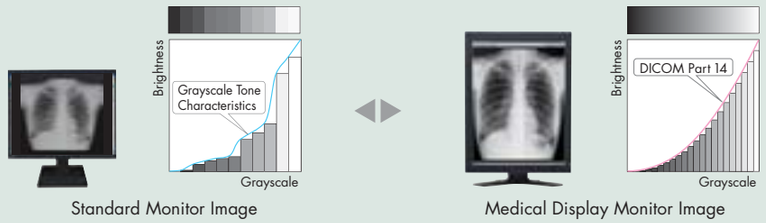
Quality Required for Monitor to Display Medical Images

When DICOM Part 14 medical images are displayed on standard monitors, they may not offer refined rendering of subtle shadings, unified display between multiple monitors, or rendering consistency over time.



RadiForce Medical Display Monitors are Compliant with DICOM Part 14

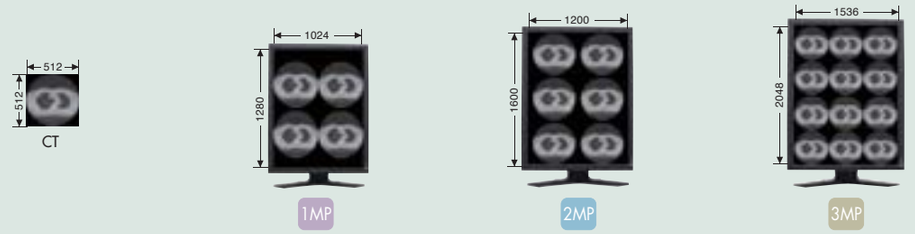
When displaying medical images, it is important that you select monitors offering refined rendering of subtle shadings, unified display between multiple monitors, and rendering consistency over time. The grayscale tones for each RadiForce medical display monitors are adjusted at the factory. Furthermore, they are calibration compliant with the DICOM Part 14 to ensure continuing monitor quality control.



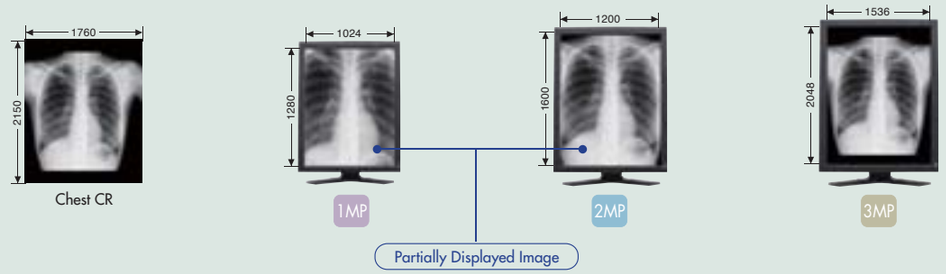
Selecting the Optimum Medical Display Monitor

Information Volume of Medical Images and Monitors

Information volume of the medical image differs depending on the modality which creates the image. When installing monitors in your hospital, it is important to consider the "information volume" of the medical images that the monitor needs to display. For example, a 1MP monitor can display 4 slices of CT with an information volume of 512 × 512 pixels, a 2MP monitor can display 6 slices, and a 3MP monitor can display 12 slices without losing any of the information.

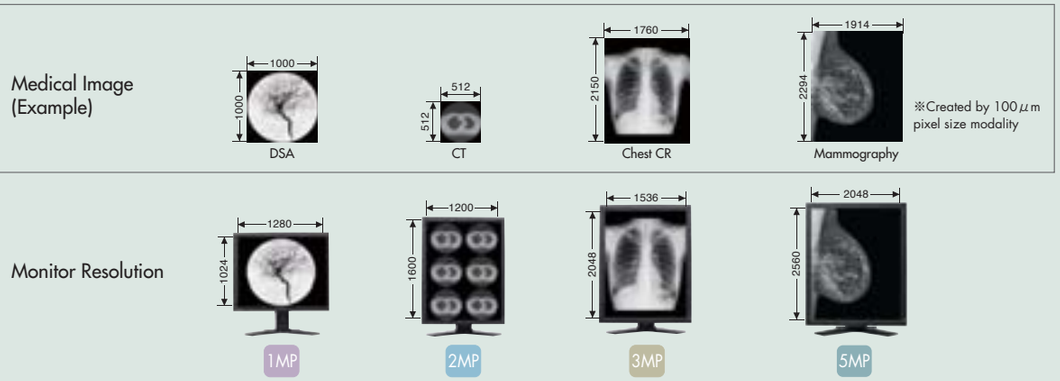


However, a chest CR which has an information volume of 1760 × 2150 pixels can only be displayed partially with a 1 or 2MP monitor. Thus, in order to display the full image, the information must be stretched causing a thinning effect of the image. Using a 3MP monitor, the image can be displayed fully without the information being thinned-out and a resulting loss in image quality.



RadiForce with the Selection of Optimum Medical Display Monitors

It is important to select the monitor which suits the medical images. With RadiForce medical display monitors, you can select the optimum monitor which is suited for the information volume of the medical image you need to display.



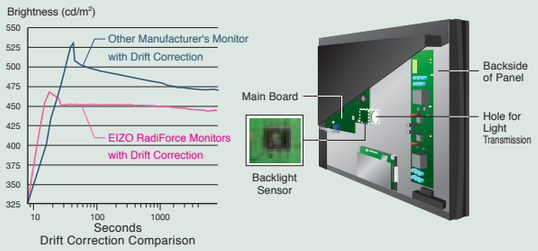
RadiForce® Medical Monitor Solutions

Features shared by all EIZO's RadiForce monitors address common technical issues like connectivity and image consistency.

Brightness Stabilization

At startup or upon wakeup, the EIZO patented drift correction function quickly stabilizes the brightness level. In addition, a sensor measures the backlight brightness and compensates for brightness fluctuations caused by the ambient temperature and the passage of time.

This brightness stabilization function is EIZO patented technology (Japan patent numbers 3171808 and 3193315, US patent number 6188380).



Wide Viewing Angles

Viewing angles are 170° wide with minimal color shift when viewed from the side.

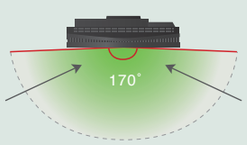
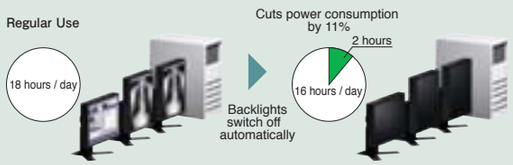


Image viewed from the side

Backlight Saver

With ScreenManager Pro for Medical utility software installed, the Backlight Saver function allows for the monitor's backlight to turn off when the screen saver is activated and the monitor's backlight to turn on when the computer comes out of the screen saver mode. This function helps to reduce power consumption when the monitor is used for a prolonged period of time.

For ScreenManager Pro for Medical non-bundled monitors, please download from http://radiforce.com/en/downloads/software.html



Warranty with Safety and Trust

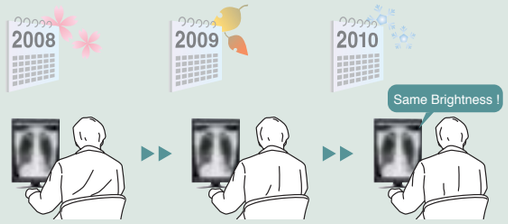
EIZO and its authorized distributors offer a five-year or a three-year limited warranty for all RadiForce monitors.

5 Year Warranty 5

3 Year Warranty 3

Brightness Stability Within Usage Time Guaranteed

EIZO's confidence in its product quality extends to brightness stability which is also covered during the usage time specified in the warranty for each product.



Customer Assurance

Meets the strictest medical, safety and EMC emissions standards including TÜV/GM, UL60601-1, CE, CB, CSA C22.2 No.601-1, VCCI, FCC, and FDA 510(k).

ISO 13485 Certification

Acquiring ISO 13485 certification demonstrates EIZO's ability to consistently meet customer requirements for these devices and services.

ISO 13485:2003

RadiForce® Monochrome & Color Monitors

5MP MONOCHROME LCD MONITOR RadiForce® GS520

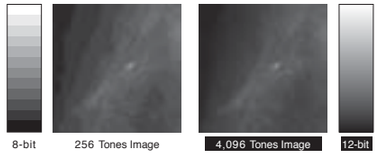
Featuring high-resolution and high-definition, the RadiForce GS520 is designed specifically for displaying digital mammography, DR and CR images and comes with a choice of glare panels for use in diversified environments.

GS520 — 12 bit — DUE — CAL SWITCH — GLARE PANEL — CL BL — 5 Years

12-Bit Simultaneous Grayscale Display

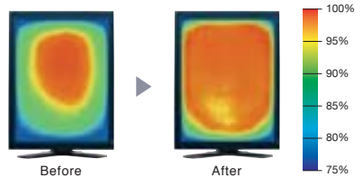
Along with EIZO's new frame rate control technology (patent pending), 4,096 (12-bit) grayscale tones can be displayed simultaneously from an abundant palette of 13,771 tones for high-definition digital mammography.

12-bit graphics board and 12-bit viewer software needed for 12-bit display.



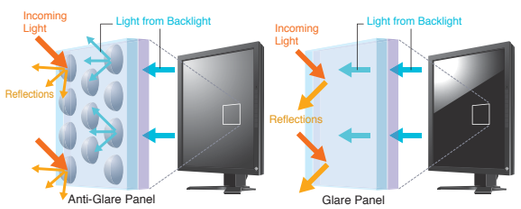
DUE for Brightness Uniformity

The Digital Uniformity Equalizer (DUE) function provides optimum backlight luminance uniformity which is considered difficult to attain due to the characteristics of LCD monitors.



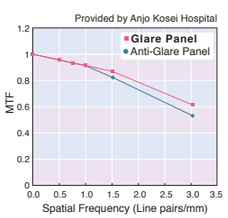
Easier Observation with a Distinctive Glare Panel

With a distinctive glare panel, there is no diffused reflection by the waffled surface, and the outline of the image is displayed more clearly.



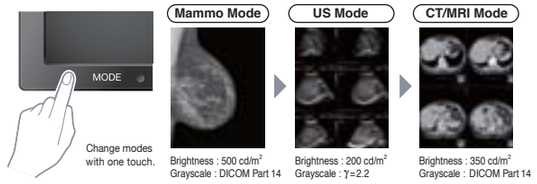
Sharper Resolution for Clearer Image Outline

MTF (Modulation Transfer Function) incorporates resolution and contrast data of a monitor's panel into a single specification. The glare panel has better MTF characteristics and displays a sharper image outline.



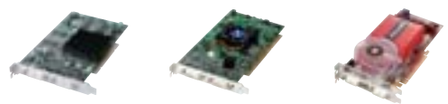
Calibration Mode Selection

Selectable with the front panel buttons, the CAL Switch function allows for various calibration modes of different modalities such as digital mammography, ultrasound, and MRI images. Furthermore, with ScreenManager Pro for Medical installed, auto mode settings can be made with the Auto CAL Switch function.



Compatibility with Various Graphics Boards

Supports various input signals for compatibility with a wide range of graphics boards so the user can select the board according to budget and performance requirements. This includes single link and dual link signals, as well as packed-pixel signal for users requiring 12-bit or 10-bit simultaneous display.

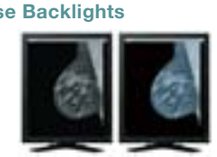


Pairing Monitors

EIZO offers the same color and grayscale for two monitors bundled as a pair in one box.

Clear Base and Blue Base Backlights

Available with either a clear base or blue base backlight.

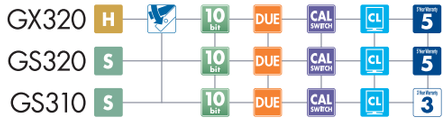


Full 5-Year Warranty

EIZO and its authorized distributors offer a five-year limited warranty.

3MP MONOCHROME LCD MONITOR RadiForce® GX320 | GS320 | GS310

With 3MP monochrome monitors the entire chest CR can be displayed, offering highly refined rendering of extremely delicate grayscale shadings.
High-end and standard models are available to fit your usage requirements.



High-End Model H

Built-In Swing Sensor for remote quality control with the sensor measuring the brightness of the monitor and the environment.

Standard Model S

Two monitors equipped with features to match your system requirements.

GX320 H

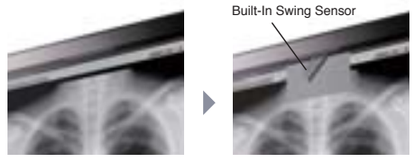
GS310 S

GS320 S

Built-In Swing Sensor

Built-in swing sensor is conveniently enabled and visible only when remote quality control operations such as calibration are being performed.

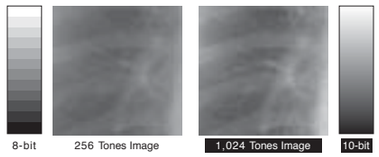
Compatible with RadiCS and RadiNET Pro versions 2.5.0 and later.



10-Bit Simultaneous Grayscale Display

10-bit (1,024 tones) from a 13-bit look-up table (8,161 tones) can be displayed simultaneously for high-definition medical imaging.

10-bit graphics board and 10-bit viewer software needed for 10-bit display.



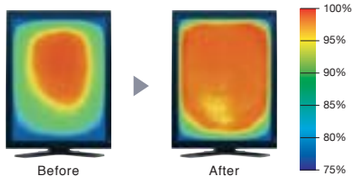
LCD Panel Protector

This anti-reflective panel protector is pre-attached to the monitor at production for protection against dust and scratches.

GX320 only.

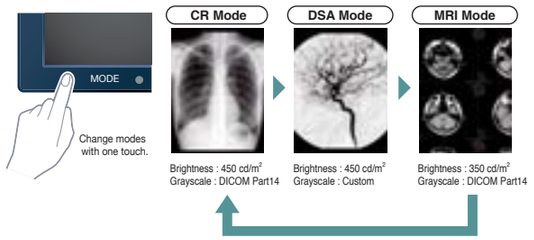
DUE for Brightness Uniformity

The Digital Uniformity Equalizer (DUE) function provides optimum backlight luminance uniformity which is considered difficult to attain due to the characteristics of LCD monitors.



Calibration Mode Selection

Selectable with the front panel button, the CAL Switch function offers various calibration modes for different modalities such as CR, CT, and endoscope images. Furthermore, with ScreenManager Pro for Medical installed, auto mode settings can be made with the Auto CAL Switch function.



Pairing Monitors

EIZO offers the same color and grayscale for two monitors bundled as a pair in one box.

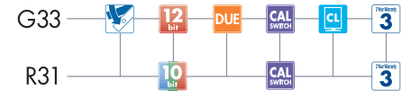
Full 5-Year Warranty

EIZO and its authorized distributors offer a five-year limited warranty.

3MP MONOCHROME LCD MONITOR RadiForce® G33

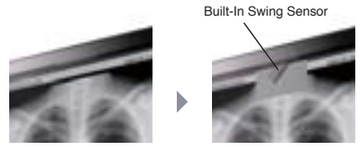
3MP COLOR LCD MONITOR RadiForce® R31

Presented here are two of EIZO's most advanced models. The high-definition monochrome G33 features EIZO-patented technology and the R31 is a high-brightness color monitor ideal for displaying monochrome images as well.



Built-In Swing Sensor

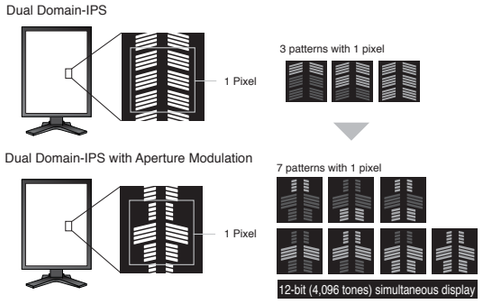
Built-in swing sensor is conveniently enabled and visible only when remote quality control operations such as calibration are being performed. *Compatible with RadiCS and RadiNET Pro versions 2.5.0 and later.*



12-Bit Simultaneous Grayscale Display

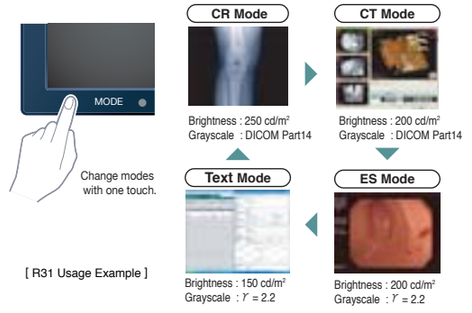
12-bit (4,096 tones) from a 13-bit look-up table (8,161 tones) can be displayed simultaneously for high-definition medical imaging. Along with aperture modulation technology, a different aperture ratio for each sub-pixel is displayed, providing a higher number of grayscale tones.

12-bit graphics board and 12-bit viewer software needed for 12-bit display.
This aperture modulation is EIZO patented technology (Japan patent number 3740085, US patent number 6961040).



Calibration Mode Selection

Selectable with the front panel button, the CAL Switch function offers various calibration modes for different modalities such as CR, CT, and endoscope images. Furthermore, with ScreenManager Pro for Medical installed, auto mode settings can be made with the Auto CAL Switch function.



[R31 Usage Example]

10-bit Color Input Support

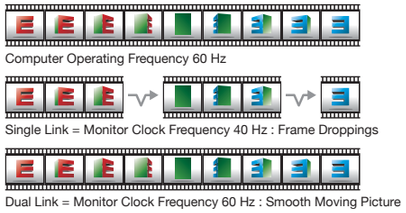
Each color (RGB) is supported with a 10-bit input compatibility that displays up-to 1,064,330,000 colors, providing highly-crisp resolution for 3D color rendering and image fusion.

10-bit color graphics board and 10-bit color viewer software needed for 10-bit color display.

Dual Link Input Support

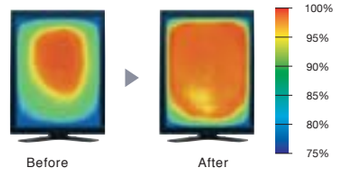
With dual link input support, monitors achieve a clock frequency of 60 Hz even when displaying a QXGA (1536 × 2048) resolution. This enables frame synchronization between the computer and the monitor, which reproduces a smooth moving picture without any dropping of frames.

Graphics board with dual link compatibility required. R31 only.



DUE for Brightness Uniformity

The Digital Uniformity Equalizer (DUE) function provides optimum backlight luminance uniformity which is considered difficult to attain due to the characteristics of LCD monitors.



LCD Panel Protector

This anti-reflective panel protector is pre-attached to the monitor at production for protection against dust and scratches.

R31-C is bundled with panel protector. R31 is not bundled with panel protector.

Pairing Monitors

EIZO offers the same color and grayscale for two monitors bundled as a pair in one box. *G33 only.*

2MP MONOCHROME LCD MONITOR RadiForce® GX220 | GS220

2MP COLOR LCD MONITOR RadiForce® RX211

These 2MP monitors offer backlight luminance uniformity with EIZO's original technology. The high brightness color monitor is ideal for displaying both monochrome and color images.
High-end and standard models are available to fit your usage requirements.

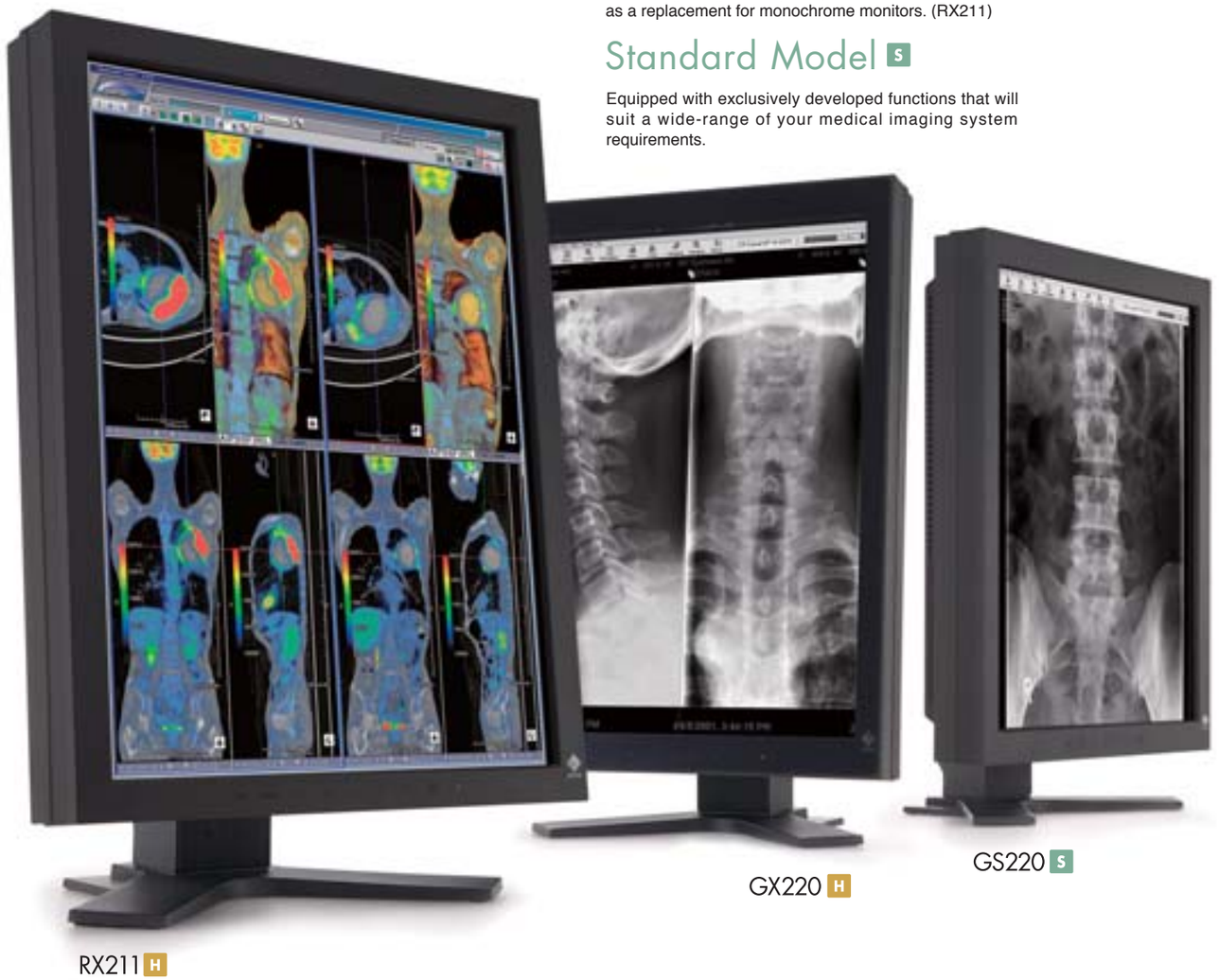
High-End Model H

Quality control is assured with a built-in sensor measuring the brightness of both the monitor and the environment. (GX220)

With a high brightness panel, this color monitor is ideal as a replacement for monochrome monitors. (RX211)

Standard Model S

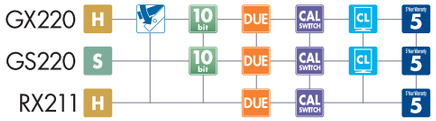
Equipped with exclusively developed functions that will suit a wide-range of your medical imaging system requirements.



RX211 H

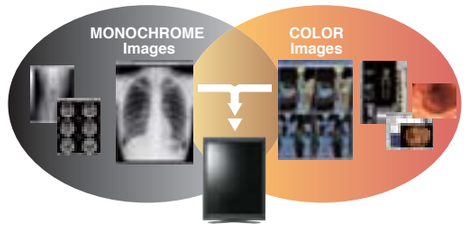
GX220 H

GS220 S



Monochrome and Color Images on One Monitor

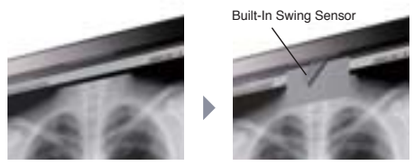
The high brightness of 750 cd/m² and contrast ratio of 1100:1 are on a par with the figure of monochrome monitors, making the RX211 ideal for displaying both monochrome and color images.



Built-In Swing Sensor

Built-in swing sensor is conveniently enabled and visible only when remote quality control operations such as calibration are being performed.

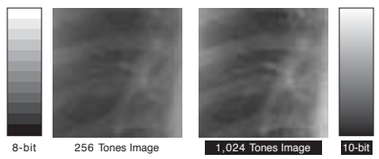
Compatible with RadiCS and RadiNET Pro versions 2.5.0 and later.



10-Bit Simultaneous Grayscale Display

10-bit (1,024 tones) from a 13-bit look-up table (8,161 tones) can be displayed simultaneously for high-definition medical imaging.

10-bit graphics board and 10-bit viewer software needed for 10-bit display.



DUE for Brightness Uniformity

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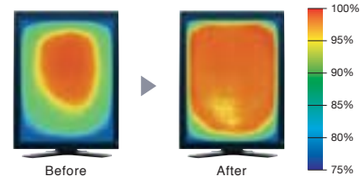
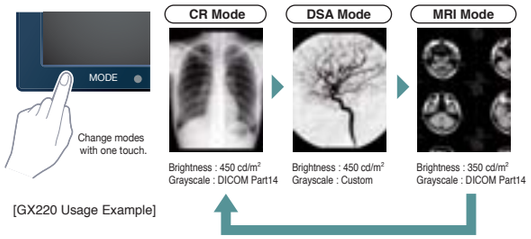


Calibration Mode Selection

Selectable with the front panel button, the CAL Switch function offers various calibration modes for different modalities such as CR, CT, and endoscope images. Furthermore, with ScreenManager Pro for Medical installed, auto mode settings can be made with the Auto CAL Switch function.

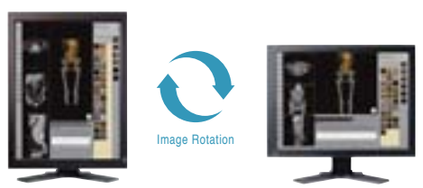


Pairing Monitors

EIZO offers the same color and grayscale for two monitors bundled as a pair in one box. *GX220, GS220 only.*

Image Rotation

The Image Rotation function offers hardware-based switching between portrait and landscape mode. This eliminates the need for special software and does not compromise graphics performance.



LCD Panel Protector

This anti-reflective panel protector is pre-attached to the monitor at production for protection against dust and scratches.

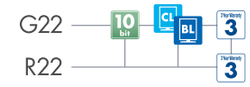
GX220 only.

Full 5-Year Warranty

EIZO and its authorized distributors offer a five-year limited warranty.

2MP MONOCHROME LCD MONITOR RadiForce® G22

2MP COLOR LCD MONITOR RadiForce® R22



The 2MP monitors are ideal for a wide variety of tasks from viewing of ultrasound, endoscope, CT and MRI images to use as a PACS/HIS/RIS terminal. They are equipped with your choice of functions that best matches your imaging requirements.

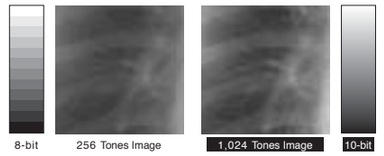
G22

R22

10-Bit Simultaneous Grayscale Display

10-bit (1,024 tones) from a 11.5-bit look-up table (3,061 tones) can be displayed simultaneously for high-definition medical imaging.

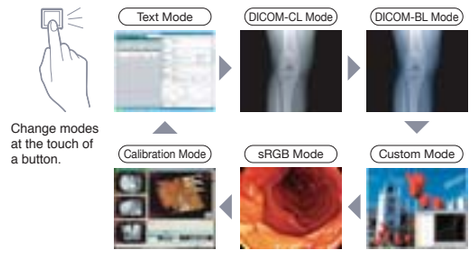
10-bit graphics board and 10-bit viewer software needed for 10-bit display.



Fine Contrast and DICOM Settings

Fine Contrast function consists of six user-selectable modes, each with different settings for brightness and gamma. It includes two DICOM modes — DICOM-CL and DICOM-BL for clear and blue base film, as well as Custom, sRGB, Calibration, and Text modes.

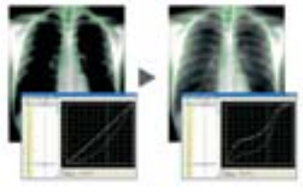
R22 only.



ToneCurve Tuning Utility

ToneCurve Tuning Utility uses the monitor's 10-bit look-up tables (LUT) for adjustment of grayscale and color tones to the desired values.

R22 only.
Input values into the table or manipulate control points on the graph (number of control points are user selectable — 3, 5, 9, 16, 24, 33, or 256).



Pairing Monitors

EIZO offers the same color and grayscale for two monitors bundled as a pair in one box.

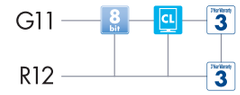
G22 only.

Clear Base and Blue Base Backlights

Available with either a clear base or blue base backlight.

1MP MONOCHROME LCD MONITOR RadiForce® G11

1MP COLOR LCD MONITOR RadiForce® R12



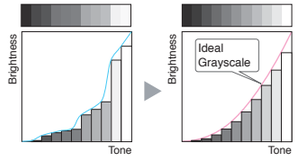
These space-efficient 1MP monitors are ideal for referral imaging and review of CT and MRI images in a distributed PACS environment.

R12

G11

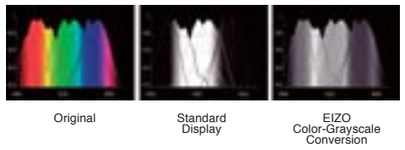
8 bit 1,531 Tone Look-Up Table

8-bit (256 tones) from 10.5-bit look-up table (1,531 tones) can be displayed simultaneously.



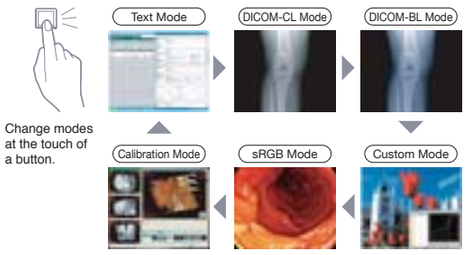
Color-Grayscale Conversion

When receiving an RGB signal from a color analog graphics board, the conversion function accurately reproduces the original color brightness differences in grayscale. *G11 only.*



Fine Contrast and DICOM Settings

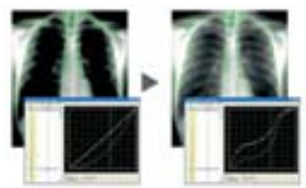
Fine Contrast function consists of six user-selectable modes, each with different settings for brightness and gamma. It includes two DICOM modes — DICOM-CL and DICOM-BL for clear and blue base film, as well as Custom, sRGB, Calibration, and Text modes. *R12 only.*



ToneCurve Tuning Utility

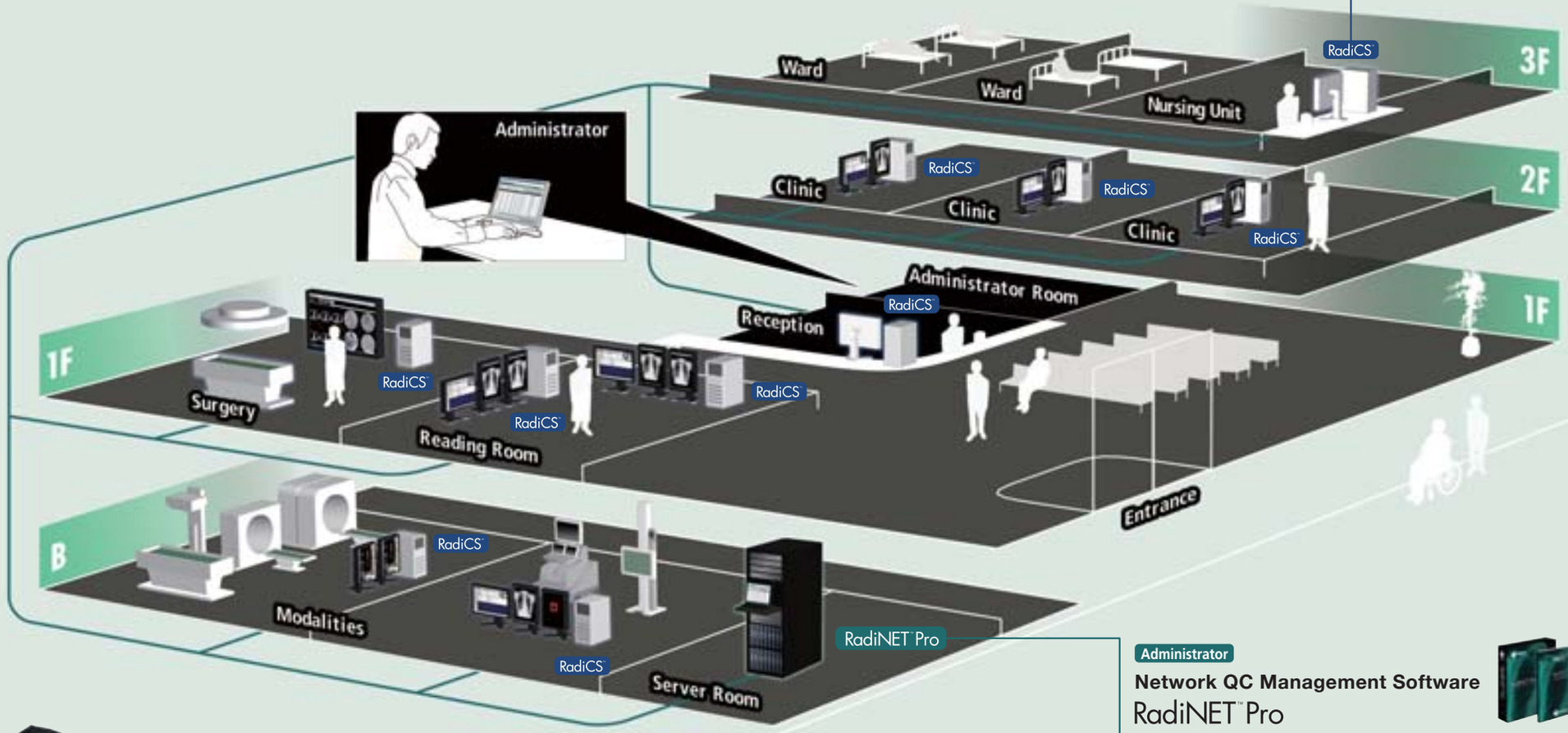
ToneCurve Tuning Utility uses the monitor's 10-bit look-up tables (LUT) for adjustment of grayscale and color tones to the desired values.

R12 only.
Input values into the table or manipulate control points on the graph (number of control points are user selectable — 3, 5, 9, 16, 24, 33, or 256).

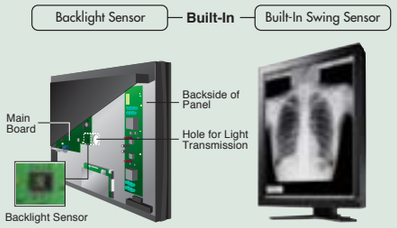


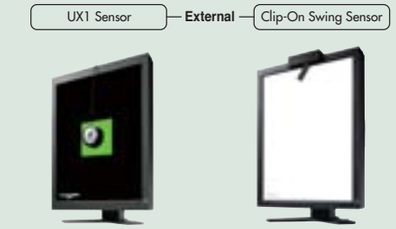
RadiForce® Quality Control Solutions

It's a fact that in the filmless environment of medical imaging, monitors have discrepancies in image reproduction, such as resolution variations from one monitor to another and luminance instabilities. Furthermore, image reproduction fidelity on a monitor can deteriorate over time. Thus, complete monitor QC is essential to ensure consistency in quality diagnosis.
Based on experience and know-how cultivated over many years of producing monitors, EIZO answers the demands of healthcare and IT professionals who are engaged in medical imaging with the highest-quality of QC-related solutions – from management tools compliant with AAPM, DIN, JESRA and IEC standards to an advanced network QC management software.



■ Choice of Sensors to Fit Your QC Management Requirements





Clip-On Swing Sensor G1

- Attachable to the monitor bezel with a USB connector
- Calibration to the DICOM Part 14 standard
- Remote calibration with RadiNET Pro
- Supports color monitors with RadiCS version 2.5.0 and later

Administrator

Network QC Management Software
RadiNET™ Pro

- Manages 8,000 Monitors
- Flexible Compatibility
- Remote Functions
- Alert Warning Messages
- Web-Based Application
- Integrated Management
- Report Function
- Secured Log Function

RadiForce® Compatibility & Specifications

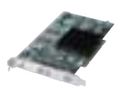
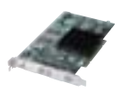
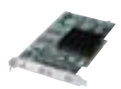
RadiForce® Accessory Compatibility

	Flexible Arm		Wall Mount Arm				Dual Height Adjustable Stand		Panel Protector	
	LA-131-D		LA-030-W		LA-011-W		LS-HM1-D*		PANEL PROTECTOR	
	Available Colors	Black, Gray	Available Colors	Black, Gray	Available Colors	Black	Available Colors	Black, Gray	Surface Treatment	Anti-Glare Type
	Mounting Desk Requirements	Thickness : 25 - 60 mm Depth: 50 mm min. Weight: 60 kg min.	Mounting Wall Requirements	130 kg min.	Mounting Wall Requirements	130 kg min.	Height Adjustment Range	75 mm, 6 stages (0/15/30/45/ 60/75 mm)	Light Transmission	More than 99 % (RP-902, RP-901 : More than 95%)
	Load Capacity	4 - 9 kg	Load Capacity	4 - 9 kg	Load Capacity	4 - 9 kg	Horizontal Slide Range	80 mm max.		
	Pivot	90°	Pivot	90°	Pivot	90°	Pivot	90°		
	Tilt Angle	Monitor: 35° Up, 0° Down Middle: 105°	Tilt Angle	Monitor: 35° Up, 0° Down	Tilt Angle	35° Up, 0° Down	Tilt Angle	40° Up, 0° Down		
	Swivel Angle	Monitor: 90° Right, 90° Left Middle: 180° Right, 180° Left Desk Clamp: 150° Right, 150° Left	Swivel Angle	Monitor: 90° Right, 90° Left Middle: 180° Right, 180° Left Wall Anchor: 90° Right, 90° Left	Swivel Angle	90° Right, 90° Left	Swivel Angle	5° Right, 5° Left		
	Dimensions (W x H x D)	150 x 220.5 - 472.2 x 445.2 - 645.2 mm	Dimensions (W x H x D)	109 x 271.4 x 513 mm	Dimensions (W x H x D)	109 x 172.1 x 113 mm	Dimensions (W x H x D)	604x326 - 401 x 212 mm		
	Weight	4.8 kg	Weight	2.8 kg	Weight	1.4 kg	Weight	6.8 kg		
	Hole Spacing	100 x 100 mm	Hole Spacing	100 x 100 mm	Hole Spacing	100 x 100 mm	Hole Spacing	100 x 100 mm		
Monochrome Monitor										
GS520	○		○		○		○		RP-901	
GX320	○		○		○		○		Bundled with Panel Protector	
GS320	○		○		○		○		RP-903	
GS310	○		○		○		○		———	
G33	○		○		○		○		Bundled with Panel Protector	
GX220	○		○		○		○		Bundled with Panel Protector	
GS220	○		○		○		○		RP-903	
G22	○		○		○		○		RP-702	
G11	○		○		○		○		RP-601	
Color Monitor										
R31	○		○		○		○		——— (R31-C: Bundled with Panel Protector)	
RX211	○		○		○		○		RP-902	
R22	○		○		○		○		RP-902	
R12	○		○		○		○		RP-701	

To be used with same model only. Portrait use only for GX320, GS320, GX220, GS220 and RX211.

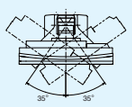
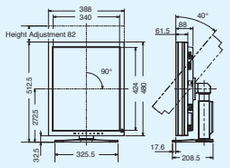
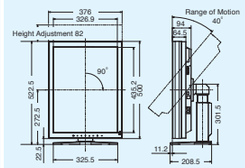
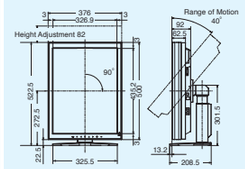
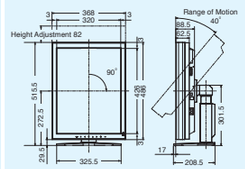
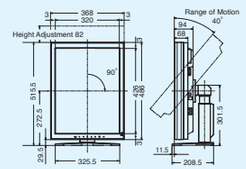
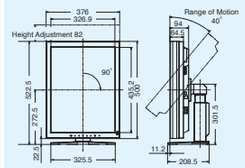
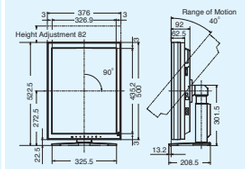
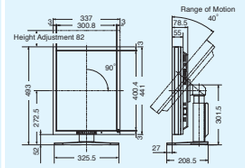
Monitor Cleaning Kit	
ScreenCleaner™	

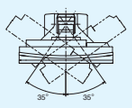
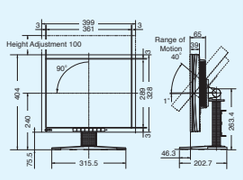
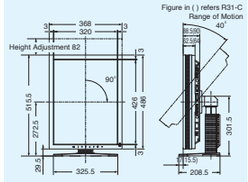
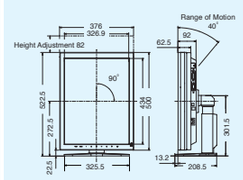
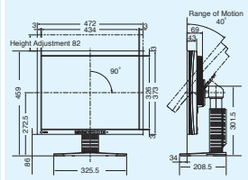
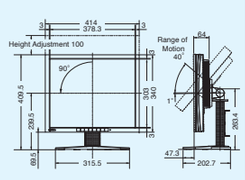
RadiForce® Graphics Board Compatibility

	PCI	PCI	PCI	PCI	PCI	PCI	PCI	PCI - Express	PCI - Express	PCI - Express
	5MP		3MP		3MP		2MP	5MP		3MP
	MED5mp-PPP	VREngine/SMD5-PCI 	MED3mp-PPP	RAD-PCI	VREngine/SMD3-DUL 	VREngine/SMD2-PCI 	MED2mp-PPP	FireGL V7350	FireMV 2250	AuroraVX3mp
	Standard	Standard	Standard	Standard & Low - Profile	Standard	Standard	Standard	Standard	Standard & Low - Profile	Standard & Low - Profile
Compatible Operating System	Windows XP / 2000 Professional	Windows XP / 2000 Professional	Windows XP / 2000 Professional	Windows XP / 2000 Professional	Windows XP / 2000 Professional	Windows XP / 2000 Professional	Windows XP / 2000 Professional	Windows XP	Windows XP	Windows XP
Frame Buffer Memory	256 MB	128 MB	256 MB	128 MB	128 MB	128 MB	256 MB	1 GB	256 MB	128 MB
Bus Interface	PCI 32-bit (33 MHz) / 64-bit (66 MHz)	PCI 32-bit (33 MHz / 66 MHz)	PCI 32-bit (33 MHz) / 64-bit (66 MHz)	PCI 32-bit (33 MHz / 66 MHz)	PCI 32-bit (33 MHz / 66 MHz)	PCI 32-bit (33 MHz / 66 MHz)	PCI 32-bit (33 MHz) / 64-bit (66 MHz)	PCI Express x 16	PCI Express x 16 / x 1	PCI Express x 16
Maximum Display Resolutions	2048 x 2560	2048 x 2560	1536 x 2048	1536 x 2048	1536 x 2048	1536 x 2048	1200 x 1600	2048 x 2560	2048 x 2560	1536 x 2048
Output Terminals	DVI-I x 2	DVI-I x 2	DVI-I x 2	DVI-D x 2	DVI-I x 2	DVI-I x 2	DVI-I x 2	DVI-D x 2	DVI-D x 2	DVI-I x 3
Dot Clock	Up to 148 MHz	Up to 148 MHz	130 MHz	162 MHz	214.25 MHz	162MHz	162 MHz	214.25 MHz	162 MHz	130 MHz
Scanning Frequency (H, V)	103.9 kHz 50 Hz	103.9 kHz 50 Hz (when displaying 5MP)	96.72 kHz 60 Hz	75 kHz 60 Hz	126.3 kHz (3MP Dual Link) 60 Hz (3MP Dual Link)	75 kHz 60 Hz	75 kHz 60 Hz	131 kHz (5MP Dual Link) 50 Hz (5MP Dual Link)	75 kHz 60 Hz	96.7 kHz 60 Hz
Maximum Power Consumption	40 watts	16.8 watts	40 watts	14.5 watts	16.8 watts	16.8 watts	40 watts	75 watts	22 watts	21.01 watts
Dimensions (W x H)	190.5 x 98.4 mm	174.5 x 106.7 mm	190.5 x 98.4 mm	167.6 x 64.5 mm	174.5 x 106.7 mm	174.5 x 106.7 mm	190.5 x 98.4 mm	228 x 112 mm	167.64 x 64.41 mm	167.6 x 68.9 mm
Monochrome Monitor										
5MP GS520	10 8	12 10 8						8	8	
3MP GX320	10 8	10 8	10 8	8		8		8	8	10 8
3MP GS320	10 8	10 8	10 8	8		8		8	8	10 8
3MP GS310	10 8	10 8	10 8							10 8
3MP G33	10 8	12 10 8	10 8							10 8
2MP GX220	8	10 8	8	8		10 8	10 8	8	8	10 8
2MP GS220	8	10 8	8	8		10 8	10 8	8	8	10 8
2MP G22	8	10 8	8	8		10 8	10 8	8	8	10 8
1MP G11	8	8	8	8		8	8		8	
Color Monitor										
3MP R31	8	8	8	8	10 8	8		8	8	8
2MP RX211	8	8	8	8		8	8	8	8	8
2MP R22	8	8	8	8		8	8		8	8
1MP R12	8	8	8	8		8	8		8	

12 10 8 Recommended 10 8 Compatible

RadiForce® Monitor Specifications

	GS520	GX320	GS320	GS310	G33	GX220	GS220	G22	
	5MP 54 cm (21.3") Monochrome LCD Monitor	3MP 54 cm (21.3") Monochrome LCD Monitor	3MP 54 cm (21.3") Monochrome LCD Monitor	3MP 53 cm (20.8") Monochrome LCD Monitor	3MP 53 cm (20.8") Monochrome LCD Monitor	2MP 54 cm (21.3") Monochrome LCD Monitor	2MP 54 cm (21.3") Monochrome LCD Monitor	2MP 50 cm (19.6") Monochrome LCD Monitor	
Model Variations	GS520-CLG: Clear Base with Glare Panel GS520-BLG: Blue Base with Glare Panel GS520-CL: Clear Base GS520-BL: Blue Base	——	——	——	——	——	——	G22-CL: Clear base G22-BL: Blue base	Model Variations
Cabinet Color	Black	Black	Black	Black	Black	Black	Black	Black	Cabinet Color
Panel	TFT Monochrome LCD Panel (IPS)	TFT Monochrome LCD Panel (IPS)	TFT Monochrome LCD Panel (IPS)	TFT Monochrome LCD Panel (IPS)	TFT Monochrome LCD Panel (IPS / Aperture Modulation)	TFT Monochrome LCD Panel (IPS)	TFT Monochrome LCD Panel (IPS)	TFT Monochrome LCD Panel (IPS)	Panel
Active Display Size (H x V)	337.9 x 422.4 mm	324.8 x 433.1 mm	324.8 x 433.1 mm	318.0 x 423.9 mm	318.0 x 423.9 mm	324.0 x 432.0 mm	324.0 x 432.0 mm	298.9 x 398.4 mm	Active Display Size (H x V)
Viewable Image Size	Diagonal: 540 mm	Diagonal: 541 mm	Diagonal: 541 mm	Diagonal: 529 mm	Diagonal: 529 mm	Diagonal: 541 mm	Diagonal: 541 mm	Diagonal: 498 mm	Viewable Image Size
Native Resolution	2048 x 2560	1536 x 2048	1536 x 2048	1536 x 2048	1536 x 2048	1200 x 1600	1200 x 1600	1200 x 1600	Native Resolution
Pixel Pitch	0.165 x 0.165 mm	0.2115 x 0.2115 mm	0.2115 x 0.2115 mm	0.207 x 0.207 mm	0.207 x 0.207 mm	0.270 x 0.270 mm	0.270 x 0.270 mm	0.249 x 0.249 mm	Pixel Pitch
Grayscale Tones / Display Colors	4,096 from a palette of 13,771 tones	1,024 from a palette of 8,161 tones	1,024 from a palette of 8,161 tones	1,024 from a palette of 8,161 tones	4,096 from a palette of 8,161 tones	1,024 from a palette of 8,161 tones	1,024 from a palette of 8,161 tones	1,024 from a palette of 3,061 tones	Grayscale Tones / Display Colors
Viewing Angles (H, V)	170°, 170°	170˚, 170˚	170˚, 170˚	170˚, 170˚	170˚, 170˚	170˚, 170˚	170˚, 170˚	170˚, 170˚	Viewing Angles (H, V)
Brightness	700 cd/m² (typical)	1000 cd/m² (typical)	1000 cd/m² (typical)	700 cd/m² (typical)	700 cd/m² (typical)	1000 cd/m² (typical)	1000 cd/m² (typical)	800 cd/m² (typical)	Brightness
Recommended Brightness for Calibration	500 cd/m²	450 cd/m²	450 cd/m²	450 cd/m²	450 cd/m²	500 cd/m²	500 cd/m²	500 cd/m²	Recommended Brightness for Calibration
Contrast Ratio	800:1 (typical)	850:1 (typical)	850:1 (typical)	900:1 (typical)	700:1 (typical)	850:1 (typical)	850:1 (typical)	850:1 (typical)	Contrast Ratio
Response Time	100 ms (typical)	23 ms (typical)	23 ms (typical)	50 ms (typical)	50 ms (typical)	23 ms (typical)	23 ms (typical)	50 ms (typical)	Response Time
Scanning Frequency (H, V)	31-135 kHz, 19-51 Hz Frame synchronous mode: 49 - 51 Hz	31-100 kHz, 48-71.5 Hz (VGA Text: 69-71 Hz) Frame synchronous mode: 59 - 61 Hz	31-100 kHz, 48-71.5 Hz (VGA Text: 69-71 Hz) Frame synchronous mode: 59 - 61 Hz	31-100 kHz, 48-71.5 Hz (VGA Text: 69-71 Hz) Frame synchronous mode: 59 - 61 Hz	31-100 kHz, 48-71.5 Hz (VGA Text: 69-71 Hz) Frame synchronous mode: 59 - 61 Hz	31-100 kHz, 48-71.5 Hz (VGA Text: 69-71 Hz) Frame synchronous mode: 59 - 61 Hz	31-100 kHz, 48-71.5 Hz (VGA Text: 69-71 Hz) Frame synchronous mode: 59 - 61 Hz	75 kHz, 60 Hz Frame synchronous mode with compatible graphics board	Scanning Frequency (H, V)
Dot Clock	300 MHz	165 MHz	165 MHz	165 MHz	165 MHz	165 MHz	165 MHz	165 MHz	Dot Clock
Input Signals	DVI Standard 1.0	DVI Standard 1.0	DVI Standard 1.0	DVI Standard 1.0	DVI Standard 1.0	DVI Standard 1.0	DVI Standard 1.0	DVI Standard 1.0	Input Signals
Sync Formats	——	——	——	——	——	——	——	——	Sync Formats
Input Terminal	DVI-D 24 pin	DVI-D 24 pin	DVI-D 24 pin	DVI-D 24 pin	DVI-D 24 pin	DVI-D 24 pin	DVI-D 24 pin	DVI-D 24 pin	Input Terminal
USB Ports	1 upstream, 2 downstream	1 upstream, 2 downstream	1 upstream, 2 downstream	1 upstream, 2 downstream	1 upstream, 2 downstream	1 upstream, 2 downstream	1 upstream, 2 downstream	1 upstream, 2 downstream	USB Ports
USB Standard	Standard Rev. 2.0	Standard Rev. 2.0	Standard Rev. 2.0	Standard Rev. 2.0	Standard Rev. 2.0	Standard Rev. 2.0	Standard Rev. 2.0	Standard Rev. 2.0	USB Standard
Power Requirements	AC 100-120 V, 200-240 V: 50 / 60 Hz	AC 100-120 V, 200-240 V: 50 / 60 Hz	AC 100-120 V, 200-240 V: 50 / 60 Hz	AC 100-120 V, 200-240 V: 50 / 60 Hz	AC 100-120 V, 200-240 V: 50 / 60 Hz	AC 100-120 V, 200-240 V: 50 / 60 Hz	AC 100 - 120 V, 200 - 240 V: 50 / 60 Hz	AC 100 - 120 V, 200 - 240 V: 50 / 60 Hz	Power Requirements
Power Consumption	90 watts	115 watts	115 watts	100 watts	100 watts	100 watts	100 watts	85 watts	Power Consumption
Power Save Mode	Less than 1.2 watts	Less than 3 watts	Less than 3 watts	Less than 3 watts	Less than 3 watts	Less than 3 watts	Less than 3 watts	Less than 6 watts	Power Save Mode
Sensor	Backlight Sensor	Built-In Swing Sensor / Backlight Sensor	Backlight Sensor	Backlight Sensor	Built-In Swing Sensor / Backlight Sensor	Built-In Swing Sensor / Backlight Sensor	Backlight Sensor	Backlight Sensor	Sensor
Power Management	DVI DMPM	DVI DMPM	DVI DMPM	DVI DMPM	DVI DMPM	DVI DMPM	DVI DMPM	DVI DMPM	Power Management
OSD Languages	English, French, German, Italian, Japanese, Simplified Chinese, Spanish, Swedish, Traditional Chinese	English, French, German, Italian, Japanese, Simplified Chinese, Spanish, Swedish, Traditional Chinese	English, French, German, Italian, Japanese, Simplified Chinese, Spanish, Swedish, Traditional Chinese	English, Japanese, German, French, Spanish, Italian, Swedish	English, Japanese, German, French, Spanish, Italian, Swedish	English, French, German, Italian, Japanese, Simplified Chinese, Spanish, Swedish, Traditional Chinese	English, French, German, Italian, Japanese, Simplified Chinese, Spanish, Swedish, Traditional Chinese	English, Japanese	OSD Languages
Net Weight	With Stand: 9.6 kg Without Stand: 6.6 kg	With Stand: 10.8 kg Without Stand: 7.8 kg	With Stand: 9.9 kg Without Stand: 6.9 kg	With Stand: 9.2 kg Without Stand: 6.2 kg	With Stand: 10.0 kg Without Stand: 7.0 kg	With Stand: 10.8 kg Without Stand: 7.8 kg	With Stand: 9.9 kg Without Stand: 6.9 kg	With Stand: 8.3 kg Without Stand: 5.3 kg	Net Weight
Hole Spacing	VESA standard (100 x 100 mm)	VESA standard (100 x 100 mm)	VESA standard (100 x 100 mm)	VESA standard (100 x 100 mm)	VESA standard (100 x 100 mm)	VESA standard (100 x 100 mm)	VESA standard (100 x 100 mm)	VESA standard (100 x 100 mm)	Hole Spacing
Certifications and Standards	CE (Medical Device Directive), TÜV/GM (EN60601-1), cTÜVus (UL60601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-B, FCC-B, Canadian ICES-003-B, c-Tick, FDA 510(k) for Mammography and General Radiography, RoHS	CE (Medical Device Directive), TÜV/GM (EN60601-1), cTÜVus (UL60601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-B, FCC-B, Canadian ICES-003-B, c-Tick, FDA 510(k), CCC, RoHS	CE (Medical Device Directive), TÜV/GM (EN60601-1), cTÜVus (UL60601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-B, FCC-B, Canadian ICES-003-B, c-Tick, FDA 510(k), CCC, RoHS	CE (Medical Device Directive), TÜV/GM (EN60601-1), cTÜVus (UL60601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-B, FCC-B, Canadian ICES-003-B, c-Tick, FDA 510(k), CCC, RoHS	CE (Medical Device Directive), TÜV/GM (EN60601-1), cTÜVus (UL60601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-B, FCC-B, Canadian ICES-003-B, c-Tick, FDA 510(k), CCC, EIZO Eco Products 2002, RoHS	CE (Medical Device Directive), TÜV/GM (EN60601-1), cTÜVus (UL60601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-B, FCC-B, Canadian ICES-003-B, c-Tick, FDA 510(k), CCC, RoHS	CE (Medical Device Directive), TÜV/GM (EN60601-1), cTÜVus (UL60601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-B, FCC-B, Canadian ICES-003-B, c-Tick, FDA 510(k), CCC, RoHS	CE (Medical Device Directive), TÜV/GM (EN60601-1), cTÜVus (UL60601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-A, FCC-A, Canadian ICES-003-A, c-Tick, FDA 510(k), CCC, EIZO Eco Products 2002, RoHS	Certifications and Standards
Supplied Accessories	AC power cord, user's manual, signal cable (DVI-D ~ DVI-D), USB cable, EIZO LCD Utility Disk (RadiCS LE, ScreenManager Pro for Medical software), ScreenCleaner (GS520-CLG, GS520-BLG only), warranty card	AC power cord, user's manual, signal cable (DVI-D ~ DVI-D), USB cable, EIZO LCD Utility Disk (RadiCS LE, ScreenManager Pro for Medical software), ScreenCleaner, warranty card	AC power cord, user's manual, signal cable (DVI-D ~ DVI-D), USB cable, EIZO LCD Utility Disk (RadiCS LE, ScreenManager Pro for Medical software), warranty card	AC power cord, user's manual, signal cable (DVI-D ~ DVI-D), USB cable, EIZO LCD Utility Disk (RadiCS LE, ScreenManager Pro for Medical software), warranty card	AC power cord, user's manual, signal cable (DVI-D ~ DVI-D), USB cable, EIZO LCD Utility Disk (RadiCS LE, ScreenManager Pro for Medical software), ScreenCleaner, warranty card	AC power cord, user's manual, signal cable (DVI-D ~ DVI-D), USB cable, EIZO LCD Utility Disk (RadiCS LE, ScreenManager Pro for Medical software), ScreenCleaner, warranty card	AC power cord, user's manual, signal cable (DVI-D ~ DVI-D), USB cable, EIZO LCD Utility Disk (RadiCS LE, ScreenManager Pro for Medical software), warranty card	AC power cord, user's manual, signal cable (DVI-D ~ DVI-D), USB cable, warranty card	Supplied Accessories
Dimensions [Unit:mm]	 								Dimensions [Unit:mm]

	G11	R31	RX211	R22	R12	
	1MP 46 cm (18.1") Monochrome LCD Monitor	3MP 53 cm (20.8") Color LCD Monitor	2MP 54 cm (21.3") Color LCD Monitor	2MP 54 cm (21.3") Color LCD Monitor	1MP 48 cm (19") Color LCD Monitor	
Model Variations	——	R31: without Panel Protector R31-C: with Panel Protector	——	——	——	Model Variations
Cabinet Color	Black	Black	Black	Black, Gray	Black, Gray	Cabinet Color
Panel	TFT Monochrome LCD Panel (IPS)	TFT Color LCD Panel (IPS)	TFT Color LCD Panel (IPS)	TFT Color LCD Panel (IPS)	TFT Color LCD Panel (IPS)	Panel
Active Display Size (H x V)	359.0 x 287.2 mm	318.0 x 423.9 mm	324.0 x 432.0 mm	432.0 x 324.0 mm	376.0 x 301.0 mm	Active Display Size (H x V)
Viewable Image Size	Diagonal: 459 mm	Diagonal: 529 mm	Diagonal: 540 mm	Diagonal: 540 mm	Diagonal: 481 mm	Viewable Image Size
Native Resolution	1280 x 1024	1536 x 2048	1200 x 1600	1600 x 1200	1280 x 1024	Native Resolution
Pixel Pitch	0.2805 x 0.2805 mm	0.207 x 0.207 mm	0.270 x 0.270 mm	0.270 x 0.270 mm	0.294 x 0.294 mm	Pixel Pitch
Grayscale Tones / Display Colors	256 from a palette of 1,531 tones	10-bit colors: 1.06 billion (maximum) colors 8-bit colors: 16.77 million from a palette of 1.06 billion colors	16.77 million from a palette of 68 billion colors	16.77 million from a palette of 1.06 billion colors	16.77 million from a palette of 1.06 billion colors	Grayscale Tones / Display Colors
Viewing Angles (H, V)	170°, 170°	170°, 170°	170°, 170°	170°, 170°	170°, 170°	Viewing Angles (H, V)
Brightness	700 cd/m² (typical)	R31: 400 cd/m² (typical), R31-C: 350 cd/m² (typical)	750 cd/m² (typical)	250 cd/m² (typical)	270 cd/m² (typical)	Brightness
Recommended Brightness for Calibration	400 d/m²	R31: 250 cd/m², R31-C: 220 cd/m²	300 cd/m²	150 cd/m²	160 cd/m²	Recommended Brightness for Calibration
Contrast Ratio	600:1 (typical)	400:1 (typical)	1100:1 (typical)	550:1 (typical)	450:1 (typical)	Contrast Ratio
Response Time	40 ms (typical)	50 ms (typical)	17 ms (typical)	30 ms (typical)	20 ms (typical)	Response Time
Scanning Frequency (H, V)	Analog: 27-82 kHz, 50-85 Hz (1280 x 1024: 50-75 Hz) Digital: 27 - 64 kHz, 60 Hz (VGA Text: 70 Hz)	31-127 kHz, 59-61 Hz (VGA Text: 69-71 Hz, QXGA: 36-61 Hz) Frame synchronous mode: 59 - 61 Hz	Analog: 24-100 kHz, 49-86 Hz (1600 x 1200: 49-76 Hz) Digital: 31 - 100 kHz, 59 - 61 Hz (VGA Text: 69 - 71 Hz) Frame synchronous mode: 59 - 61 Hz	Analog: 31-94 kHz, 49-86 Hz (1600 x 1200: 49-76 Hz) Digital: 31-76 kHz, 59-61 Hz (VGA Text: 69-71 Hz) Frame synchronous mode: 59-61 Hz (Not applicable if Screen Size is set to "Normal.")	Analog: 30-82 kHz, 49-86 Hz (1280 x 1024: 49-76 Hz) Digital: 30-65 kHz, 59-61 Hz (VGA Text: 69-71 Hz) Frame synchronous mode: 57.5-62 Hz (Not applicable if Screen Size is set to "Normal.")	Scanning Frequency (H, V)
Dot Clock	Analog: 135 MHz Digital: 108 MHz	215 MHz	Analog: 162 MHz Digital: 202.5 MHz	Analog: 202.5 MHz Digital: 162 MHz	Analog: 135 MHz Digital: 108 MHz	Dot Clock
Input Signals	Analog: RGB Analog Digital: DVI Standard 1.0	DVI Standard 1.0	Analog: RGB Analog Digital: DVI Standard 1.0	Analog: RGB Analog Digital: DVI Standard 1.0	Analog: RGB Analog Digital: DVI Standard 1.0	Input Signals
Sync Formats	Separate, Composite, Sync-on-Green	——	Separate, Composite, Sync-on-Green	Separate, Composite, Sync-on-Green	Separate, Composite, Sync-on-Green	Sync Formats
Input Terminal	DVI-I 29 pin	DVI-D 24 pin	D-Sub mini 15 pin, DVI-D 24 pin	D-Sub mini 15 pin, DVI-I 29 pin (switchable)	DVI-I 29 pin x 2 (switchable)	Input Terminal
USB Ports	1 upstream, 2 downstream	1 upstream, 2 downstream	1 upstream, 2 downstream	1 upstream, 2 downstream	1 upstream, 2 downstream	USB Ports
USB Standard	Standard Rev. 1.1	Standard Rev. 2.0	Standard Rev. 2.0	Standard Rev. 2.0	Standard Rev. 2.0	USB Standard
Power Requirements	AC 100-120 V, 200-240 V: 50 / 60 Hz	AC 100-120 V, 200-240 V: 50 / 60 Hz	AC 100 - 120 V, 200 - 240 V: 50 / 60 Hz	AC 100-120 V, 200-240 V: 50 / 60 Hz	AC 100 - 120 V, 200 - 240 V: 50 / 60 Hz	Power Requirements
Power Consumption	60 watts	110 watts	115 watts	70 watts	55 watts (typical)	Power Consumption
Power Save Mode	Less than 8 watts	Less than 3 watts	Less than 3 watts	Less than 8 watts	Less than 8 watts	Power Save Mode
Sensor	Backlight Sensor	Backlight Sensor	Backlight Sensor	Backlight Sensor	Backlight Sensor	Sensor
Power Management	Analog: VESA DPMS Digital: DVI DMPM	DVI DMPM	Analog: VESA DPMS Digital: DVI DMPM	Analog: VESA DPMS Digital: DVI DMPM	Analog: VESA DPMS Digital: DVI DMPM	Power Management
OSD Languages	English, Japanese	English, German, French, Italian, Japanese, Spanish, Swedish	English, French, German, Italian, Japanese, Simplified Chinese, Spanish, Swedish, Traditional Chinese	English, German, French, Italian, Japanese, Spanish, Swedish	English, German, French, Italian, Japanese, Spanish, Swedish	OSD Languages
Net Weight	With Stand: 7.8 kg Without Stand: 5.5 kg	With Stand: R31 9.2 kg / R31-C 10.0 kg Without Stand: R31 6.2 kg / R31-C 7.0 kg	With Stand: 9.4 kg Without Stand: 6.4 kg	With Stand: 10.2 kg Without Stand: 7.0 kg	With Stand: 8.1 kg Without Stand: 5.8 kg	Net Weight
Hole Spacing	VESA standard (100 x 100 mm)	VESA standard (100 x 100 mm)	VESA standard (100 x 100 mm)	VESA standard (100 x 100 mm)	VESA standard (100 x 100 mm)	Hole Spacing
Certifications and Standards	CE (Medical Device Directive), TÜV/GM (EN60601-1), cTÜVus (UL60601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-A, FCC-A, Canadian ICES-003-A, c-Tick, FDA 510(k), CCC	CE (Medical Device Directive), TÜV/GM (EN60601-1), cTÜVus (UL60601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-B, FCC-B, Canadian ICES-003-B, c-Tick, FDA 510(k), CCC, EIZO Eco Products 2002, RoHS	CE (Medical Device Directive), TÜV/GM (EN60601-1), cTÜVus (UL60601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-B, FCC-B, Canadian ICES-003-B, c-Tick, FDA 510(k), RoHS	CE (Medical Device Directive), TÜV/GM (EN60601-1), c TÜVus (UL60601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-B, FCC-B, Canadian ICES-003-B, c-Tick, FDA 510(k), CCC, EIZO Eco Products 2002, RoHS	CE (Medical Device Directive), TÜV/GM (EN60601-1), cTÜVus (UL2601-1, CSA C22.2 No. 601-1), CB (IEC60601-1), VCCI-B, FCC-B, Canadian ICES-003-B, c-Tick, FDA 510(k), CCC, EIZO Eco Products 2002, RoHS	Certifications and Standards
Supplied Accessories	AC power cord, user's manual, signal cable (DVI-I ~ D-Sub mini 15 pin, DVI-D ~ DVI-D), USB cable, warranty card	AC power cord, user's manual, Dual-Link signal cable (DVI-D ~ DVI-D), USB cable, EIZO LCD Utility Disk (RadiCS LE, ScreenManager Pro for Medical), warranty card, ScreenCleaner (R31-C only)	AC power cord, user's manual, signal cables (DVI-D ~ DVI-D, D-Sub mini 15 pin ~ D-Sub mini 15 pin), USB cable, EIZO LCD Utility Disk (RadiCS LE, ScreenManager Pro for Medical), warranty card	AC power cord, user's manual, signal cables (D-Sub mini 15 pin ~ D-Sub mini 15 pin, DVI-D ~ DVI-D, DVI-I ~ D-Sub mini 15 pin), USB cable, EIZO LCD Utility Disk (RadiCS LE, Screen Manager Pro for LCD), ToneCurve Tuning Utility, warranty card	AC power cord, user's manual, signal cables (DVI-I ~ D-Sub mini 15 pin, DVI-D ~ DVI-D), USB cable, EIZO LCD Utility Disk (RadiCS LE, Screen Manager Pro for LCD), ToneCurve Tuning Utility, warranty card	Supplied Accessories
Dimensions [Unit:mm]	 					Dimensions [Unit:mm]

Legend

- Monochrome / Color
- Built-In Swing Sensor
- Grayscale Tones / Display Colors: 12 bit, 10 bit, 8 bit, 10 bit
- Digtal Uniformity Equalizer: DUE
- Warranty: 5 Year Warranty 5, 3 Year Warranty 3

Ergonomic Design

Narrow bezels require less eye movement in a multi-panel environment. The height and pivot adjustable stand offers added flexibility and viewing comfort.

Specifications are subject to change without notice.

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